#### **United States Department of Agriculture**



Natural Resources Conservation Service P.O. Box 2890 Washington, D.C. 20013

Date: January 16, 2004

Subject: January 1, 2004 Western Snowpack Conditions and Water Supply Forecasts

The following information is provided for your use in describing climate and water supply conditions in the West as of January 1, 2004.

### **OVERVIEW**

As of January 1, 2004 a majority of Pacific Northwest, northern Rocky Mountain states and California are forecast to receive near average spring runoff. The primary exceptions are Arizona and New Mexico where snowpacks are well below average. In many of these areas, this year's snowpack is resting on dry soils, which generally translates into reduced snowmelt runoff as soils replenish long-term moisture deficits. Reservoir storage for all western states except California is running well below their January averages.

## SNOWPACK

The January 1, 2004 snowpack map (Figure 1) clearly reflects the well below average snowpacks in the Southwest that are a concern at this time. Most Southwest basin snowpacks are less than 70% of average, with many basins reporting snowpacks less than 50% of average in Arizona. In contrast, Utah, northern Nevada, southern Idaho, central and northern California and much of Oregon report above average snowpacks, ranging from 110% to over 150% of average.

Alaska snowpacks vary from 50% to 69% of average in southwest Alaska, 70% to 89% of average in the north, near average in central Alaska, and 110% to 129% in southern coastal basins.

A map containing a daily update of the westwide snowpack may be obtained from the following URL - <a href="http://www.wcc.nrcs.usda.gov/water/w">http://www.wcc.nrcs.usda.gov/water/w</a> <a href="http://www.wcc.nrcs.usda.gov/water/w">qnty.html</a>

# SEASONAL PRECIPITATION

Seasonal precipitation (October 1, 2003 to December 31, 2003) reflects a similar pattern to the snowpack westwide (Figure 2). The Pacific Northwest totals are significantly above average while the Southwest and eastern Colorado report well below average precipitation. The rest of the West reports near or slightly below average totals. Alaska precipitation is above average in most western basins, near average in the south and below average in central basins.

Western Washington above average totals of greater than 150% of average reflect a very wet October. Low seasonal totals, less than 50% of average, in the Southwest reflect a continued lack of significant storm systems moving through the area.

# SPRING AND SUMMER STREAMFLOW FORECASTS

As of January 1, 2004, spring and summer water supplies are forecast to be near average for a large part of the Pacific Northwest, California and northern Rocky Mountain states (Figure 3). The central Rockies and the Intermountain streamflow forecasts are a bit more variable, ranging from 70% to 129% of average.

Southwestern streamflows are forecast to be well below average, with several basins under 50% of average. Continued low water supply forecasts follow 2003's below average runoff for many Southwestern basins.

Alaska water supply forecasts are issued starting April 1st. Specific state streamflow summaries can be obtained from the Internet location - <a href="http://www.wcc.nrcs.usda.gov/cgibin/bor.pl">http://www.wcc.nrcs.usda.gov/cgibin/bor.pl</a>

## RESERVOIR STORAGE

As of January 1, 2004, the total storage for major western storage reservoirs in each state, except California, is below seasonal averages (Figure 4). This reflects the carryover dryness of the continuing drought in the Intermountain West, Southwest and southern Rockies and last water year's below average seasonal runoff.

## FOR MORE INFORMATION

The National Water and Climate Center Homepage provides the latest available snowpack and water supply information. Please visit us at <a href="http://www.wcc.nrcs.usda.gov">http://www.wcc.nrcs.usda.gov</a>

/s/ RON MARLOW Director, Conservation Engineering Division, Natural Resources Conservation Division, Washington, DC

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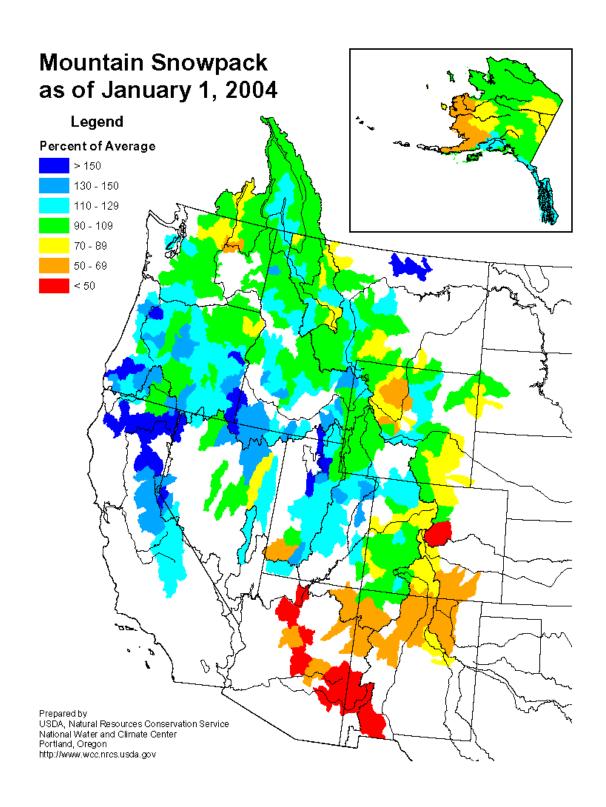


Figure 1. January 1, 2004 Snowpack

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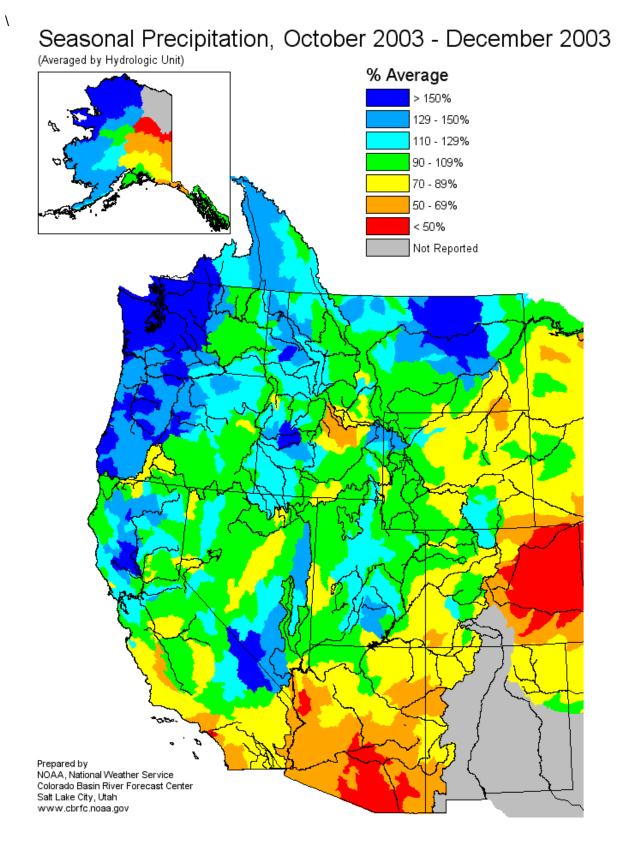


Figure 2. Seasonal Precipitation, October 1, 2003 to December 31, 2003

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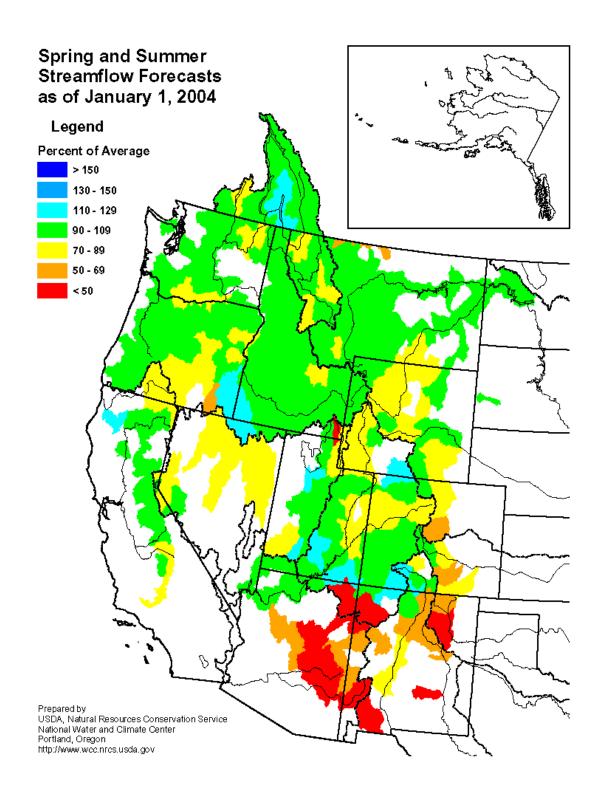
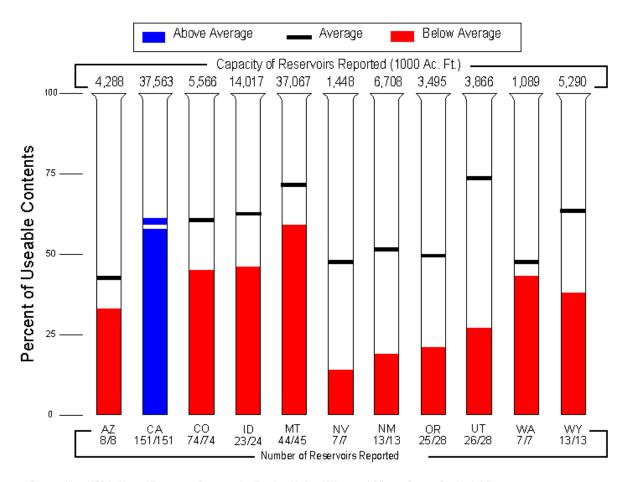


Figure 3. Seasonal Water Supply Forecasts - January 1, 2004

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# Reservoir Storage as of January 1, 2004



Prepared by: USDA, Natural Resource's Conservation Service, National Water and Climate Center, Portland, OR http://www.wcc.nrcs.usda.gov

Figure 4. Current Reservoir Storage - January 1, 2004

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